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DVORAK & ORUM  
53 West Jackson Boulevard  
Chicago, IL 60604-3606

EXAMINER

DEL SOLE, JOSEPH S

ART UNIT	PAPER NUMBER
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1722

DATE MAILED: 09/08/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/935,435

Applicant(s)

MULLER, HANS

Examiner

Joseph S. Del Sole

Art Unit

1722

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 01 August 2003.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-8 and 10-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 10-21 is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 2 and 4-6 are rejected under 35 U.S.C. 102(b) as being anticipated by Gaiser et al (4,412,806).

Gaiser et al teach an arrangement for a two stage ejector, with a follow on action, (Fig 3) capable of installation centrally in a molding tool (the actuator rod, Fig 3, #48 is centrally installed); having a rear ejector part (Fig 3, #48) exhibiting connecting means (Fig 1, see #48) for attachment of the ejector to an injection molding machine and is capable of detachable attachment to the remaining part (Fig 3, #70) of the ejector; the attachment between the rear ejector part and the remaining part of the ejector is in the form of a threaded connection (Fig 3, the threaded connection between #48 and #70); the rear ejector part is displaced through a transcurrent opening (Fig 3, the opening in #52) in the mold; the form of the opening is adapted to the front end part of the rear ejector part (Fig 1 and 3); the rear ejector part exhibits an enlarged accommodating part to accommodate the rear end of an adjacent part of the ejector part (Fig 3).

For clarification, "for a two stage ejector, with a follow-on action" is functional language that does not necessarily have structural weight and for purposes of this rejection, a two stage ejector is an ejector that utilizes two separate steps two eject.

Art Unit: 1722

The two sets of arrows in Fig 6a demonstrates the two steps of ejection in this reference.

3. Claims 1 and 4-8 are rejected under 35 U.S.C. 102(b) as being anticipated by Cane et al (4,372,741).

Cane et al teach an arrangement for a two stage ejector, with a follow on action, (Fig 1) capable of installation centrally in a molding tool (the ejector pin, Fig 1, #80 is centrally installed); having a rear ejector part (Fig 1, #76 and 80) exhibiting connecting means (Fig 1, the connector between #77 and #82) for attachment of the ejector to an injection molding machine and is capable of detachable attachment to the remaining part (Fig 1, #68) of the ejector; the rear ejector part is displaced through a transcurrent opening (Fig 1, the opening in #22) in the mold; the form of the opening is adapted to the front end part of the rear ejector part (Fig 1); the rear ejector part exhibits an enlarged accommodating part to accommodate the rear end of an adjacent part of the ejector part (Fig 1); an attachment part (Fig 1, #77) for detachable attachment of the ejector to an ejector plate (Fig 1, #22) situated to its rear, is accommodated with a flange part (Fig 1, the part of #76 attached to #77) on the front end of the rear ejector part; the attachment part is in the form of a sleeve of irregular shape (the threads create an irregular shape).

For clarification, "for a two stage ejector, with a follow-on action" is functional language that does not necessarily have structural weight and for purposes of this rejection, a two stage ejector is an ejector that utilizes two separate steps to eject. The two steps of ejection in this reference include the force from #80 and the removal of

Art Unit: 1722

containment from the movement of #54). Also, in order for the opening to be adapted to the front end part, it merely must be large enough for the front end part to fit through it.

4. Claims 1 and 4-6 are rejected under 35 U.S.C. 102(b) as being anticipated by Japanese Patent (4-128020).

Japanese Patent (4-128020) teaches an arrangement for a two stage ejector, with a follow on action, (Fig 1) capable of installation centrally in a molding tool (the ejector pin, Fig 1, #35 is centrally installed); having a rear ejector part (Fig 1, #35 and #32) exhibiting connecting means (Fig 1, the connection between #35 and #13) for attachment of the ejector to an injection molding machine and is capable of detachable attachment to the remaining part (Fig 1, #33) of the ejector; the rear ejector part is displaced through a transcurrent opening (Fig 1, the opening in #20) in the mold; the form of the opening is adapted to the front end part of the rear ejector part (Fig 1); the rear ejector part exhibits an enlarged accommodating part to accommodate the rear end of an adjacent part of the ejector part (Fig 1); and the rear ejector part exhibits an internal attachment part for detachable attachment to an injection molding machine (Fig 1) to accommodate a part (Fig 1, #9) of a piston situated at the front of the telescopic ejector arrangement.

For clarification, "for a two stage ejector, with a follow-on action" is functional language that does not necessarily have structural weight and for purposes of this rejection, a two stage ejector is an ejector that utilizes two separate steps two eject. The two steps of ejection in this reference include the separate movements of #26 and

Art Unit: 1722

#29. Also, in order for the opening to be adapted to the front end part, it merely must be large enough for the front end part to fit through it.

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gaiser et al (4,412,806) in view of Brown (4,496,302).

Gaiser et al teach the apparatus as discussed above.

Gaiser et al fail to teach an internal thread in the rear ejector part is so arranged as to enclose and accommodate an external thread in a remaining part of the threaded connection.

Brown teaches the connection of two ejector parts in an injection apparatus wherein a rear ejector part (Fig 1, #74) has an internal part to enclose an external thread in a remaining part of the threaded connection (Fig 1, at #75, the Examiner notes

Art Unit: 1722

that "threaded connection (6) is interpreted as equivalent to the "remaining part (6)" as defined in claim 1) for the purpose of detachably attaching and connecting two ejector parts.

It would have been obvious to one having ordinary skill in the art at the time of the Applicant's invention to have modified the invention Gaiser et al with the rear ejector part having an internal threaded (rather than an external thread) for detachable attachment to the remaining part of the ejector as taught by Brown because internal/external threads are an obviously equivalent to external/internal threads.

***Allowable Subject Matter***

4. Claims 10-21 are allowed.
5. The following is an examiner's statement of reasons for allowance: the prior art of record fails to teach or suggest an attachment part secured by means of screws to the rear ejector plate, in combination with an arrangement for a two stage ejector in a molding tool characterized in that a rear ejector part exhibiting connecting means for the attachment of the ejector to an injection molding machine having the rear ejector part accommodated in such a way as to be displaced through a transcurrent opening in the mold; the form of the opening is adapted to the front end part of the rear ejector part; the rear ejector part exhibits an enlarged accommodating part to accommodate the rear end of an adjacent part of the ejector part; and an attachment part for detachable attachment of the ejector to an ejector plate situated to its rear accommodated with a flanged part on the front end on the rear ejector part..

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

***Response to Arguments***

6. Applicant's arguments filed 8/1/03 have been fully considered but they are not persuasive.

Firstly, the Examiner acknowledges that the claim objections and objections to the specification and abstract have been overcome by Applicant's amendments and that the replacement specification has been accepted.

The Applicant argues that Gaiser does not teach or suggest all the limitations of claim 1, which includes "rear ejector part exhibiting connecting means for attachment of the ejector to an ejecting moulding machine".

The Examiner disagrees. For one thing, the claim states that the rear ejector part connects the ejector to an injection moulding machine, not an ejecting (or ejection) moulding machine.

The Applicant argues that Gaiser is connected to the ejection moulding machine via the guide rods (42) which extend from the ejector portion to the fixed pin of the ejector portion and that there is no discussion of how the ejector portion is attached to the ejection moulding machine.

Again, the claim does not state that the ejector portion is attached to an ejection moulding machine. Gaiser does teach an ejector (48) connected to an injection molding machine (10, 78, 90, 108 are all part of the injection molding machine) detachably



Art Unit: 1722

(threaded connection contiguous with 48) attached to a remaining part of the ejector (70). Although there are also connection means (42), this does not preclude the other connection means taught that anticipate the claims.

The Applicant argues that (48) does not have a connecting means for attachment to the ejection molding machine.

The Examiner disagrees. Figure 3 shows a threaded connection on 48 and 70 is clearly part of the ejector (or ejection moulding machine -- interchangeable terminology).

The Applicant argues that Cane does not teach or suggest the limitations of claim 1 and that although element 76 is attached to the mold via a nut 77 it is not capable of detachable attachment to the remaining part of the ejector.

The Examiner disagrees. When two parts are attached via a nut, they are detachable. As shown in Figures 2-5, 80 is used to eject a part and the nut 77 is what attaches it to another part of the ejector (82).

The Applicant argues that there is no discussion in Cane about the means of attaching element 80 to the air ram (82) and that there is not teaching or suggestion that the rear ejector part is capable of detachable attachment.

The Examiner disagrees. Although no words in the written disclosure about the attachment element 80 to the air ram (82), the drawing clearly shows a nut between the two clearly for a purpose of attachment, and since it is a nut, it is clearly anticipated that it is detachable.

Art Unit: 1722

The Applicant argues that JP'020 does not teach or suggest how the ejector part elements 35 and 32 are connected to the ejection moulding machine and whether the ejector is connected via its rear ejector part.

The Examiner disagrees. Figures 2 and 3 demonstrate that 9 is an ejector. Towards its rear (rear being relative) elements 13, 32 and 35 are connected to each other and to the part of the ejector that is represented by 9. Furthermore, as it is broadly claimed, any two structure that are attached are detachable.

The Applicant argues that claim 3 depends from claim 1 and is thus patentable.

The Examiner disagrees. While claim 3 would be patentable if claim 1 was found allowable, claim 1 remains rejected and thus claim 3 is not patentable.

### ***Conclusion***

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

### ***Correspondence***

Art Unit: 1722

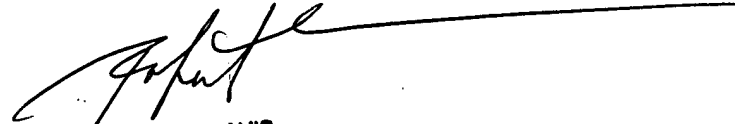
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph S. Del Sole whose telephone number is (703) 308-6295. The examiner can normally be reached on Monday through Friday from 8:30 A.M. to 5:00 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ms. Wanda Walker, can be reached at (703) 308-0457. The official fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306 for both non-after finals and for after finals.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

*Joseph S Del Sole*

J.S.D.  
September 3, 2003



ROBERT DAVIS  
PRIMARY EXAMINER  
GROUP 1300-1200

*9/4/03*